Bleak Hill Primary Maths Newsletter

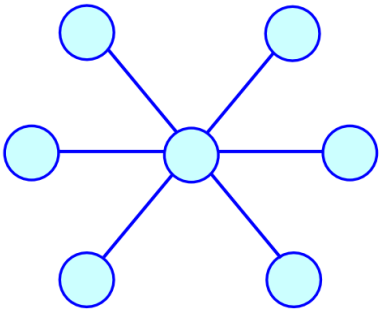
Autumn Edition

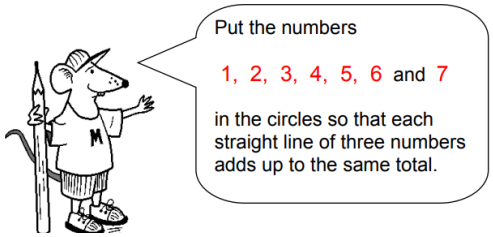
Welcome!

Welcome to the Autumn term Maths Newsletter from Bleak Hill Primary School. Each newsletter will spotlight maths within our school, feature a famous mathematician, explain key strategies that are taught in school, offer ways that you can help to support your child with their maths at home and pose a few challenges for you and your children to try out.

Mr Harrison (Maths Subject Lead)

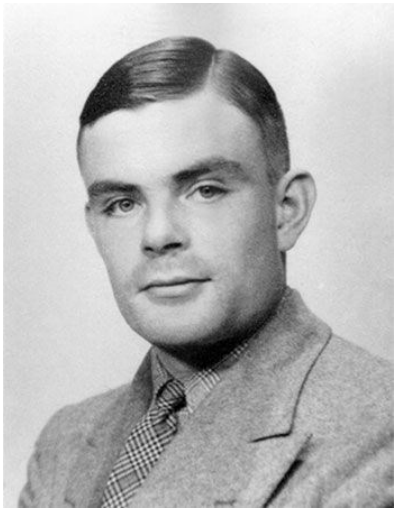
Puzzle it Out!





If you can solve these puzzles, bring the answers to me and I will see if you are correct. There may be a reward for the first few pupils with correct answers!

Terrific Turing



Alan Turing was a British mathematician who made major contributions to the fields of mathematics, computer science, and artificial intelligence. He worked for the British government during World War II, when he succeeded in breaking the secret code Germany used to communicate.

Alan Mathison Turing was born on June 23, 1912, in London, England. He was educated at a top private school and then attended the University of Cambridge. In 1936 Turing moved to Princeton University in the United States to study for a doctorate in mathematical logic. It was during that time that he introduced the theory for a computing device called the Turing machine. The Turing machine became the basis for all digital computers.

In September 1939 Great Britain went to war against Germany. During the war, Turing worked at the Government Code and Cypher School at Bletchley Park. Turing and others designed a code-breaking machine known as the Bombe. They used the Bombe to learn German military secrets. By early 1942 the code breakers at Bletchley Park were decoding about 39,000 messages a month. At the end of the war, Turing was made an Officer of the Most Excellent Order of the British Empire.

In 1945, after the end of World War II, Turing was recruited to create an electronic computer. However, the machine he designed was thought to be too difficult to build. A much smaller machine was built instead. Turing then moved to the University of Manchester. The world's first working digital computer was built there in 1948. Turing designed an input-output system and the programming system for the computer.

Turing was found guilty of being a homosexual, which was a crime in Britain at the time. As a result, Turing had a criminal record, so he could no longer work for the government's code-breaking centre. He spent the remaining years of his life working at Manchester and on research on artificially creating living things.

Every year, beginning in 1966, a person who has made a great contribution to the field of computer science is awarded the Turing Award. The Turing Award is often referred to as the computer science equivalent of the Nobel Prize.

Marvellous Mathematicians

Maths In School

This term, we are pleased to announce the relaunch of *Times Tables Rock Stars* (TTRockstars) as an integral part of our mathematics curriculum. The children have embraced the platform with remarkable enthusiasm, engaging actively with its fun, competitive format to strengthen their multiplication skills. To further encourage their progress, we regularly share individual scores and class leaderboards, both within classrooms and during school assemblies, creating an atmosphere of positive reinforcement and friendly competition. Certificates are awarded to celebrate individual achievements, fostering a sense of pride and accomplishment. We are thrilled to see the children's enthusiasm for TTRockstars, and we look forward to witnessing their continued progress in mastering these essential skills.

Key facts we have been learning this term?

EYFS

I can say the numbers 0-5 in order

I can say the numbers 0-10 in order

Y1

I can read and write 1-10 in numerals and words

I know bonds for numbers to 6

Y2

I know bonds to 20

I know the facts for the 2 times table

Y3

I know bonds for numbers to 20

I know the facts for the 3 times table

Y4

I know the facts for the 6 times table

I know bonds to 100

Y5

I know decimal bonds to 1 and 10

I know tables facts up to 12x12

Y6

I know tables facts up to 12x12

I can common factors in pairs of numbers

These Key Facts are taken from the KIRF sheets for each year group which can be found on the website. The KIRFs give an indication of what the pupils should be able to recall at that stage within the year.

Maths...Let's Do It!

In this section we will go over an area of maths that parents have directly asked for to help guide or support their child. If there is ever a question you have about a method used to teach a maths objective—please ask the class teacher. We will always try to help as best we can.

What are Roman Numerals?

Roman numerals are the numbers that were used in ancient Rome, which employed combinations of letters from the Latin alphabet (I, V, X, L, C, D and M). Numbers are represented by combinations of the symbols in the box to the right.

I	V	X	L	C	D	M
1	5	10	50	100	500	1000

Numbers are represented by putting the symbols into various combinations in different orders. The symbols are then added together, for example, I + I + I, written as III, is 3. To write 11 we add X (10) and I (1) and write it as XI. For 22 we add X and X and I and I, so XXII.

Roman numerals are usually written in order, from largest to smallest and from left to right, but more than three identical symbols never appear in a row. Instead, a system of subtraction is used: when a smaller number appears in front of a larger one, that needs to be subtracted, so IV is 4 (5 - 1) and IX is 9 (10 - 1).

Modern numbers	Roman numerals	Modern numbers	Roman numerals
1	I	11	XI
2	II	12	XII and so on...
3	III	20	XX
4	IV	21	XXI and so on...
5	V	30	XXX
6	VI	31	XXXI and so on...
7	VII	40	XL
8	VIII	50	L
9	IX	60	LX
10	X	100	C

The subtraction system is used in six cases:

- I is placed before V and X: IV (4) and IX (9).
- X is placed before L (50) and C (100): XL (40) and XC (90).
- C is placed before D (500) and M (1000): CD (400) and CM (900).

Try these out and see how you get on.

Translate these Roman numerals.

XII	_____	LXVI	_____
XXIX	_____	LXXX	_____
XLVI	_____	XCIII	_____
LII	_____	VII	_____
LXXI	_____	C	_____

Write these numbers in Roman numerals.

37	_____	45	_____
98	_____	51	_____
64	_____	74	_____
19	_____	88	_____
23	_____	5	_____

These are **the objectives related to Roman numerals that are introduced in Key Stage 2**:

Year 3
Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks

Year 4
Read Roman numerals from 1 to 100 (I to C) and know that, over time, the numeral system changed to include the concept of 0 and place value

Year 5
Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals